

#L5040



PCT10

## RAW SEQUENCE LISTING

DATE: 02/08/2002

PATENT APPLICATION: US/10/031,783

TIME: 11:39:10

Input Set : A:\EP.txt

Output Set: N:\CRF3\02082002\J031783.raw

ENTERED

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5 <110> APPLICANT: Herr, John C.
6     Norton, Elizabeth J.
7     Deikman, Alan B.
9 <120> TITLE OF INVENTION: Recombinant Antibody Directed Against Human Sperm
10    Antigen
12 <130> FILE REFERENCE: 00415-02
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/031,783
C--> 15 <141> CURRENT FILING DATE: 2002-10-23
17 <150> PRIOR APPLICATION NUMBER: 60/145,512
18 <151> PRIOR FILING DATE: 1999-07-23
20 <160> NUMBER OF SEQ ID NOS: 18
22 <170> SOFTWARE: PatentIn Ver. 2.1
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 116
26 <212> TYPE: PRT
27 <213> ORGANISM: Mus musculus
29 <400> SEQUENCE: 1
30    Asp Ile Glu Leu Thr Gln Ser Pro Phe Ser Leu Pro Val Ser Leu Gly
31        1             5             10             15
33    Gly Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
34        20             25             30
36    Asn Arg Asp Thr Tyr Leu His Trp Phe Leu Gln Lys Pro Gly Gln Ser
37        35             40             45
39    Pro Glu Leu Leu Ile Tyr Arg Val Ser Asn Arg Phe Ser Gly Val Pro
40        50             55             60
42    Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
43        65             70             75             80
46    Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
47        85             90             95
49    Thr His Val Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
50        100            105            110
52    Arg Ala Ala Ala
53        115
56 <210> SEQ ID NO: 2
57 <211> LENGTH: 348
58 <212> TYPE: DNA
59 <213> ORGANISM: Mus musculus
61 <400> SEQUENCE: 2
62    gacatcgagc tcaactcagtc tccattctcc ctgcctgtca gtcttggagg tccagcctcc 60
64    atctcttgca gatctagtc gagtcttgta cacagtaata gagacactta tttacattgg 120
66    ttctctgcaga agccaggcca gtctccagag ctctgatct acagagtttc caaccgattt 180
68    tctgggggtcc cagacaggtt cagtggcagt ggatcagga cagatttcac actcaagatc 240
70    agcagagtgg aggctgagga tctgggagtt tatttctgtt ctcaaagtac acatgttcca 300

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72      ttcacgttcg gctcggggac caagctggaa atcaaacggg cggccgca      348
76 <210> SEQ ID NO: 3
77 <211> LENGTH: 118
78 <212> TYPE: PRT
79 <213> ORGANISM: Mus musculus
81 <400> SEQUENCE: 3
82      Gln Val Lys Leu Gln Gln Pro Gly Ser Glu Pro Val Arg Pro Gly Ala
83      1          5          10          15
85      Ser Val Lys Val Ser Cys Arg Ala Ser Gly Tyr Lys Phe Thr Thr Tyr
86      20          25          30
88      Trp Met His Trp Val Arg Gln Arg Pro Gly Gln Gly Pro Glu Trp Ile
89      35          40          45
91      Gly Asp Ile Tyr Pro Gly Ser Gly Asp Ser Asn Tyr Asp Val Lys Phe
92      50          55          60
94      Lys Asn Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr Val Tyr
95      65          70          75          80
97      Ile Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
98      85          90          95
100     Ala Arg Gly Asp Tyr Gly Cys Pro Phe Val Tyr Trp Gly Gln Gly Thr
101     100          105          110
103     Thr Val Thr Val Ser Ser
104     115
107 <210> SEQ ID NO: 4
108 <211> LENGTH: 354
109 <212> TYPE: DNA
110 <213> ORGANISM: Mus musculus
112 <400> SEQUENCE: 4
113     caggtgaaac tgcagcaacc tgggtctgaa ccggtgaggc ctggagcttc agtgaagggtg 60
115     tcctgcaggg cttctggcta caaattcacc acctactgga tgcactgggt gaggcagagg 120
117     cctggacaag gccctgagtg gattggagat atttatcctg gtagtgggtg ttctaactac 180
119     gatgtgaagt tcaagaacaa ggccacactg actgtagaca catcctccag cacagtttac 240
121     atacaactca gcagcctgac atctgaggac tccgcggtct attactgtgc aagagggggac 300
123     tatggttgcc cttttgttta ctggggccaa ggcaccacgg tcaccgtctc cagt      354
127 <210> SEQ ID NO: 5
128 <211> LENGTH: 15
129 <212> TYPE: PRT
130 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Description of Artificial Sequence:peptide linker
136 <400> SEQUENCE: 5
137     Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
138     1          5          10          15
141 <210> SEQ ID NO: 6
142 <211> LENGTH: 100
143 <212> TYPE: DNA
144 <213> ORGANISM: Artificial Sequence
146 <220> FEATURE:
147 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR primer
149 <400> SEQUENCE: 6

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150      ggcaccacgg tcaccgtctc cagtggcggc ggcggcagcg gtggtggtgg ttctgggggc 60
152      ggcggcagcg acatcgagct cactcagtct ccattctccc                      100
156 <210> SEQ ID NO: 7
157 <211> LENGTH: 100
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR primer
164 <400> SEQUENCE: 7
165      gggagaatgg agactgagtg agctcgatgt cgctgccgcc gccccagaa ccaccaccac 60
167      cgctgccgcc gccgccactg gagacggtga ccgtggtgcc                      100
171 <210> SEQ ID NO: 8
172 <211> LENGTH: 264
173 <212> TYPE: PRT
174 <213> ORGANISM: Mus musculus
176 <400> SEQUENCE: 8
177      Met Ala Gln Val Lys Leu Gln Gln Pro Gly Ser Glu Pro Val Arg Pro
178      1      5      10      15
181      Gly Ala Ser Val Lys Val Ser Cys Arg Ala Ser Gly Tyr Lys Phe Thr
182      20      25      30
184      Thr Tyr Trp Met His Trp Val Arg Gln Arg Pro Gly Gln Gly Pro Glu
185      35      40      45
187      Trp Ile Gly Asp Ile Tyr Pro Gly Ser Gly Asp Ser Asn Tyr Asp Val
188      50      55      60
190      Lys Phe Lys Asn Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr
191      65      70      75      80
193      Val Tyr Ile Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr
194      85      90      95
196      Tyr Cys Ala Arg Gly Asp Tyr Gly Cys Pro Phe Val Tyr Trp Gly Gln
197      100     105     110
199      Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
200      115     120     125
202      Gly Ser Gly Gly Gly Gly Ser Asp Ile Glu Leu Thr Gln Ser Pro Phe
203      130     135     140
205      Ser Leu Pro Val Ser Leu Gly Gly Pro Ala Ser Ile Ser Cys Arg Ser
206      145     150     155     160
208      Ser Gln Ser Leu Val His Ser Asn Arg Asp Thr Tyr Leu His Trp Phe
209      165     170     175
211      Leu Gln Lys Pro Gly Gln Ser Pro Glu Leu Leu Ile Tyr Arg Val Ser
212      180     185     190
214      Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
215      195     200     205
217      Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
218      210     215     220
220      Val Tyr Phe Cys Ser Gln Ser Thr His Val Pro Phe Thr Phe Gly Ser
221      225     230     235     240
223      Gly Thr Lys Leu Glu Ile Lys Arg Ala Ala Ala Gly Ala Pro Val Pro
224      245     250     255
226      Tyr Pro Asp Pro Leu Glu Pro Arg

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227                               260
230 <210> SEQ ID NO: 9
231 <211> LENGTH: 792
232 <212> TYPE: DNA
233 <213> ORGANISM: Mus musculus
235 <400> SEQUENCE: 9
236     atggcccagg tgaaactgca gcaacctggg tctgaaccgg tgaggcctgg agcttcagtg 60
238     aaggtgtcct gcagggtctt tggctacaaa ttcaccacct actggatgca ctgggtgagg 120
240     cagaggcctg gacaaggccc tgagtggatt ggagatattt atcctggtag tgggtattct 180
242     aactacgatg tgaagttcaa gaacaaggcc aactgactg tagacacatc ctccagcaca 240
244     gtttacatac aactcagcag cctgacatct gaggactccg cggctctatta ctgtgcaaga 300
246     ggggactatg gttgcccttt tgtttactgg ggccaaggca ccacggtcac cgtctccagt 360
248     ggcggcggcg gcagcgggtg tgggtggttct gggggcggcg gcagcgacat cgagctcact 420
250     cagtctccat tctccctgcc tgtcagtctt ggaggtccag cctccatctc ttgcagatct 480
252     agtcagagtc ttgtacacag taatagagac acttatttac attggttctt gcagaagcca 540
254     ggccagtctc cagagctcct gatctacaga gtttccaacc gattttcttg ggtcccagac 600
256     aggttcagtg gcagtggatc agggacagat ttcacactca agatcagcag agtggaggct 660
258     gaggatctgg gagtttattt ctgttctcaa agtacacatg ttccattcac gttcggctcg 720
260     gggaccaagc tggaaatcaa acgggcggcc gcaggtgcgc cggtgccgta tccggatccg 780
262     ctggaaccgc gt                                     792
266 <210> SEQ ID NO: 10
267 <211> LENGTH: 792
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
273     sequence substituting bacterial codons for mouse
274     codons
276 <400> SEQUENCE: 10
277     atggcccagg tgaaactgca gcaacctggg tctgaaccgg tgcgccctgg cgcttcagtg 60
279     aaggtgtcct gccgcgcttc tggctacaaa ttcaccacct actggatgca ctgggtgcgc 120
281     cagcgccctg gccaaggccc tgagtggatt ggcgatattt atcctggtag tgggtattct 180
283     aactacgatg tgaagttcaa gaacaaggcc aactgactg tagacacatc ctccagcaca 240
285     gtttacatcc aactcagcag cctgacatct gaggactccg cggctctatta ctgtgcaaga 300
287     ggggactatg gttgcccttt tgtttactgg ggccaaggca ccacggtcac cgtctccagt 360
289     ggcggcggcg gcagcgggtg tgggtggttct gggggcggcg gcagcgacat cgagctcact 420
291     cagtctccat tctccctgcc tgtcagtctt ggcgatccag cctccatctc ttgccgctct 480
293     agtcagagtc ttgtacacag taatcgcgac acctatctgc attggttctt gcagaagcca 540
295     ggccagtctc cagagctcct gatctaccgc gtttccaacc gcttttcttg ggtcccagac 600
297     cgcttcagtg gcagtggctc agggacagat ttcacactca agatcagcag cgtggaggct 660
299     gaggatctgg gcgtttattt ctgttctcaa agtacacatg ttccattcac gttcggctcg 720
301     gggaccaagc tggaaatcaa acgggcggcc gcaggtgcgc cggtgccgta tccggatccg 780
303     ctggaaccgc gt                                     792
307 <210> SEQ ID NO: 11
308 <211> LENGTH: 251
309 <212> TYPE: PRT
310 <213> ORGANISM: Artificial Sequence
312 <220> FEATURE:
313 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic

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314     sequence substituting amino acids in the natural
315     mouse protein to "humanize" the protein
317 <400> SEQUENCE: 11
318     Met Ala Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Lys Lys Pro
319         1             5             10             15
321     Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
322         20             25             30
324     Thr Tyr Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
325         35             40             45
327     Trp Ile Gly Asp Ile Tyr Pro Gly Ser Gly Asp Ser Asn Tyr Asp Val
328         50             55             60
330     Lys Phe Lys Asn Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr
331         65             70             75             80
333     Ala Tyr Met Gln Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
334         85             90             95
336     Tyr Cys Ala Arg Gly Asp Tyr Gly Cys Pro Phe Val Tyr Trp Gly Gln
337         100            105            110
339     Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
340         115            120            125
342     Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ser Pro Ser
343         130            135            140
345     Ser Leu Pro Val Ser Val Gly Asp Pro Ala Ser Ile Ser Cys Arg Ser
346         145            150            155            160
348     Ser Gln Ser Leu Val His Ser Asn Arg Asp Thr Tyr Leu His Trp Tyr
349         165            170            175
351     Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Arg Val Ser
352         180            185            190
354     Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
355         195            200            205
357     Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
358         210            215            220
361     Val Tyr Tyr Cys Ser Gln Ser Thr His Val Pro Phe Thr Phe Gly Gln
362         225            230            235            240
364     Gly Thr Lys Val Glu Ile Lys Arg Ala Ala Ala
365         245            250
368 <210> SEQ ID NO: 12
369 <211> LENGTH: 753
370 <212> TYPE: DNA
371 <213> ORGANISM: Artificial Sequence
373 <220> FEATURE:
374 <223> OTHER INFORMATION: Description of Artificial Sequence: synthetic
375     sequence substituting human codons for mouse
376     codons
378 <400> SEQUENCE: 12
379     atggcacaag ttcaattaca acagtctggt gcagaagtta aaaaacctgg tgcttctggt 60
381     aaagtttctt gcaaagcttc tggttatacc tttaccacgt attggatgca ttgggttcgt 120
383     caagctcctg gtcaaggtct ggaatggatt ggtgatattt atcctggttc tgggtgattct 180
385     aattatgatg ttaaatttaa aaatcgtgtt accattaccg ctgatacctc tacctctacc 240
387     gcttatatgc aattatctag cttacgttct gaagataccg cagtttatta ttgtgcacgt 300

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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/031,783

DATE: 02/08/2002

TIME: 11:39:11

Input Set: A:\EP.txt

Output Set: N:\CRF3\02082002\J031783.raw

L:14 M:270 C: Current Application Number differs, Replaced Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date